



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: George E. Barringer, Jr.  
Application No.: 10/601,277 Group Art Unit: 1743  
Filed: June 20, 2003 Examiner: Not assigned  
Confirmation No.: 6447  
Title: Automated Macromolecule Sample Preparation System

CERTIFICATE OF MAILING OR TRANSMISSION	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or is being facsimile transmitted to the United States Patent and Trademark Office on:	
10/31/03 Date	Annie Demirel Signature
Annie Demirel Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or  
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or  
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or  
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(i):  
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.  
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
- ☒ Copies of the cited references are enclosed.
- ☐ Since this application was filed after June 30, 2003, copies of issued U.S. patents and published U.S. applications are not required and are not being provided.
- ☐ Copies of the cited references are enclosed except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
- ☐ The listed references were cited in the enclosed International Search Report in a counterpart foreign application.
- ☒ The "concise explanation" requirement (non-English references) for references AM, AN, and AR2 under 37 CFR 1.98(a)(3) is satisfied by:
- ☐ the explanation provided on the attached sheet.
- ☐ the explanation provided in the Specification.
- ☐ submission of the enclosed International Search Report.
- ☐ submission of the enclosed English-language version of a foreign Search Report and/or foreign Office Action.
- ☒ the enclosed English language abstract/summary for AN and AR2.  
English claims are provided in AM on pages 5 and 6.

☒ Applicant requests that the following non-published pending applications be considered:

Examiner's  
Initials

\_\_\_\_ U.S. Patent Application No. 10/601,096, by Shin-Fuw Lin and George E. Barringer, Jr.,  
filed June 20, 2003, Docket No.: 3551.1000-000

\_\_\_\_ U.S. Patent Application No. 10/601,181, by George E. Barringer, Jr., filed June 20, 2003,  
Docket No.: 3551.1003-000

\_\_\_\_ U.S. Patent Application No. 10/600,177, by George E. Barringer, Jr., Stephen C. Phillips  
and Mark J. Phillips, filed June 20, 2003, Docket No.: 3551.1004-000

\_\_\_\_ U.S. Patent Application No. 10/600,083, by George E. Barringer, Jr., filed June 20, 2003,  
Docket No.: 3551.1005-000

\_\_\_\_\_  
Examiner

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Date

- ☒ A copy of each above-cited application, including the current claims, is enclosed.
- ☐ A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [ ], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- ☐ A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
- ☐ Please charge Deposit Account 08-0380 in the amount of \$[ ]. A copy of this Statement is enclosed.
- ☒ Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By 

James M. Smith  
Registration No.: 28,043  
Telephone: (978) 341-0036  
Facsimile: (978) 341-0136

Concord, MA 01742-9133

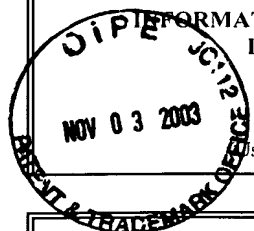
Dated: 10/31/03

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.  
3551.1002-000APPLICATION NO.  
10/601,277INFORMATION DISCLOSURE CITATION  
IN AN APPLICATIONAPPLICANT  
George E. Barringer, Jr.

October 27, 2003

(Use several sheets if necessary)

FILING DATE  
June 20, 2003CONFIRMATION NO.  
6447GROUP  
1743

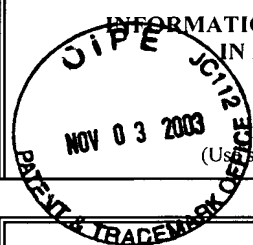
## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER	ISSUE DATE / PUBLICATION DATE	NAME
	AA	4,785,676	22-NOV-88	DeOca, <i>et al.</i>
	AB	4,999,307	12-MAR-91	Oakley
	AC	5,755,155	26-MAY-98	Buesing
	AD	5,771,917	30-JUN-98	Carney, <i>et al.</i>
	AE	5,833,826	10-NOV-98	Nordman
	AF	5,948,998	07-SEP-99	Witte, <i>et el.</i>
	AG	5,985,121	16-NOV-99	Wu, <i>et al.</i>
	AH	6,491,804 B2	10-DEC-2002	Manz, <i>et al.</i>
	AI	RE37,941 E	31-DEC-2002	Guttman
	AJ	6,537,432 B1	25-MAR-2003	Schneider, <i>et al.</i>
	AK			
	AA2			
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	AC3			

EXAMINER

DATE CONSIDERED

PTO-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  October 27, 2003 (Use several sheets if necessary)	ATTORNEY DOCKET NO. 3551.1002-000		APPLICATION NO. 10/601,277	
	APPLICANT George E. Barringer, Jr.			
	FILING DATE June 20, 2003		CONFIRMATION NO. 6447	GROUP 1743



## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	AL	EP 0 566 645 B1	26-OCT-94	PCT		
	AM	EP 0 607 234 B1	03-MAY-95	PCT		X
	AN	WO 93/06741	15-APR-93	PCT	abstract	
	AO					
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	AM5					

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		FILING DATE June 20, 2003		CONFIRMATION NO. 6447	GROUP 1743

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AR	Arce, L, <i>et al.</i> , "On-line Ion-exchange Preconcentration in a Flow Injection System Coupled to Capillary Electrophoresis for the Direct Determination of UV Absorbing Anions," <i>Analytica Chimica Acta</i> , 390: 39-44 (1999).
AS	Burgi, D. S. and Chien R., "Optimizatin in Sample Stacking for High-Performance Capillary Electrophoresis," <i>Analytical Chemistry</i> , 63(18): 2042-2047 (1991).
AT	Bleha, M, <i>et al.</i> , "Role of Convection in Dialysis Desalination of Protein Mixtures by Microporous Charged Neosepta Membranes," <i>Membrane</i> : 21(2): 144-152 (1996).
AU	Chen, H and Fang, Z, "Combination of Flow Injection with Capillary Electrophoresis. Part 3. On-line Sorption Column Preconcentration Capillary Electrophoresis System," <i>Analytica Chimica Acta</i> : 355: 135-143 (1997).
AV	Chien, R. and Burgi, D. S., "Sample Stacking of an Extremely Large Injection Volume in High-Performance Capillary Eletrophoresis," <i>Analytical Chemistry</i> , 64(9): 1046-1050 (1992).
AW	Jiang, Z., <i>et al.</i> , "Separation of Pyridazinone Derivatives Using Pressurized Gradient Capillary Electrochromatography," <i>J. Microcolumn Separations</i> : 13(5) 191-196 (2001).
AX	Jin, H., <i>et al.</i> , "Purification and Renaturation of Recombinant Human Lymphotoxin (Tumour Necrosis Factor Beta) Expressed in <i>Escherichia coli</i> as Inclusion Bodies," <i>J. Chem. Tech. Biotechnol.</i> , 59: 67-72 (1994).
AY	Kaul, R. and Mattiasson, B, "Secondary Purification," <i>Bioseparation</i> , 3: 1-26 (1992).
AZ	Kuban, P., <i>et al.</i> , "New Interface for Coupling Flow-injection and Capillary Electrophoresis," <i>Analytica Chimica Acta</i> , 337: 117-124 (1997).
AR2	Lacoste, B., <i>et al.</i> , "Study of an Aerobic Concentrated Culture Reactor Coupled to Separation by Crossflow Micro- or Ultra-filtration Through Inorganic Membranes. Initial Approach to a Depollution Application," <i>REVUE DES SCIENCES DE L'EAU</i> , 6(4): 363-380 (1993).
AS2	Masi, C. G., "Choosing Automation for Fast Liquid Sample Handling," <i>Drug Discovery &amp; Development</i> , January issue: 36-41 (2003).
AT2	Seifert, G. K. E. and Matteau, P. P., "An Automatic Aseptic Bioreactor Sampling System," <i>Biotechnology and Bioengineering</i> , 32: 923-926 (1988).

EXAMINER	DATE CONSIDERED
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<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  October 27, 2003 (Use several sheets if necessary)		APPLICANT George E. Barringer, Jr.			
		FILING DATE June 20, 2003		CONFIRMATION NO. 6447	GROUP 1743

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

AU2	Shihabi, Z., "Stacking in Capillary Zone Electrophoresis," <i>Journal of Chromatography A</i> , 902: 107-117 (2000).
AV2	Sinacola, J. R. and Robinson, A.S., "Rapid Refolding and Polishing of Single-chain Antibodies from <i>Escherichia coli</i> Inclusion Bodies," <i>Protein Expression &amp; Purification</i> , 26: 301-308 (2002).
AW2	Tishchenko, G., <i>et al.</i> , "Separation of Specific Immunoglobulin. 1. Desalination Using a Membrane System," <i>Bioseparation</i> , 5: 19-25 (1995).

EXAMINER	DATE CONSIDERED
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